

Amendment
Serial No. 10/760,546
Attorney Docket No. 042043

REMARKS

By the present amendment, claim 16 has been corrected to depend on claim 15 instead of claim 16. It is submitted that the correction is immediate and does not raise new issues. Accordingly, entry and consideration of the amendment is respectfully requested.

Claims 1-16 are pending in the present application. Claim 1 is the only independent claim.

As a preliminary, in the Office Action, claim 16 is objected to as dependent on itself.

Claim 16 has been corrected to be dependent on claim 15. Accordingly, it is submitted that the objection should be withdrawn.

Next, in the Office Action, claims 1-9 and 11 and new claims 12-14 are rejected under 35 U.S.C. 103(a) as obvious over US 2002/0034596 to Yano et al. ("Yano A") in view of US 2002/0145804 to Yano et al. ("Yano B"), and further in view of US 6,771,327 to Sekiguchi ("Sekiguchi"). Still further, claim 10 and new claims 15-16 are rejected under 35 U.S.C. 103(a) as obvious over Yano A, in view of Yano B and Sekiguchi, and further in view of JP 2001-042127 by Yoshimi et al. ("Yoshimi").

In response to the argument made in the last response that there would have been no motivation to combine Yano A and B to use an isotropic substrate with the retardation layer of Yano A, it is alleged in this Office Action that Yano B is used to show that each "birefringent layer" of a multilayer stack can be made by coating on an isotropic substrate, and Sekiguchi is used to show that isotropic substrate has the advantage of avoiding optical distortions.

The rejection is respectfully traversed.

Yano A describes forming a transparent layer (retardation layer) with the coating of an organic material (see Yano A at paragraph [0020]). However, Yano A uses an optical sheet comprising a transparent layer (retardation layer of $n_x=n_y>n_z$) formed on a retardation film (of $N_z=0.6$ to 0.9) as a substrate. Such retardation film cannot be isotropic in Yano A. Yano A is completely silent as to using an isotropic substrate.

Further, Yano B discloses using an isotropic substrate for its retardation layer. However, Yano B is also completely silent as to whether its isotropic substrate would be appropriate in the construction of Yano A. In particular, neither Yano A nor Yano B provide guidance as to whether and how an isotropic substrate should be provided instead or in addition to the retardation film substrate of Yano A. In view of the express teaching of Yano A to use its retardation film as a substrate, a person of ordinary skill in the art would have been taught away from even referring to Yano B, let alone attempting to modify the coating substrate of Yano A, in the absence of any reasonable expectation of success provided by either Yano A or B.

In addition, it is submitted that the construction of Yano A, i.e., transparent layer (retardation layer of $n_x=n_y>n_z$) / retardation film / (TAC) / light polarizer, as shown at paragraph [0024] of Yano A, is provided in order to reduce light leakage in an oblique direction, as described at paragraph [0007] of Yano A. In other words, the anisotropy of the protective film of Yano A is controlled by the retardation film of Yano A. As a result, Yano A teaches away from reducing the anisotropy of its retardation film.

In summary, Yano A suggests that, in addition to the negative C-plate, the protective film of the polarizing plate should be supplemented or even replaced by a retardation film with in-plane and thickness retardation. In other words, Yano A teaches that the anisotropy of the protective film should be controlled to reach the properties of the retardation layer, i.e., Yano A teaches away from reducing the inherent anisotropy of a conventional protective film.

Conversely, Yano B discloses a construction retardation layer A / (isotropic substrate) / retardation layer B / (isotropic substrate) / retardation layer C / (isotropic substrate) (see Yano B at paragraph [0017] or [0021]). Thus, in Yano B, the birefringence in the short wavelength range can be controlled to be small, as described at paragraph [0006] of Yano B. Yano B provides its retardation layers on isotropic substrates, and does not suggest to replace the isotropic substrate with the retardation layer. As a result, Yano B also fails to teach or suggest substituting a retardation layer for an isotropic substrate.

In summary, Yano B teaches that its retardation layers can be provided by coating an isotropic base film. Yano B does not suggest that an isotropic layer can replace a retardation layer.

Further, Sekiguchi uses an isotropic substrate in order to avoid distortions. However, in both Yano A and Yano B, the distortion is controlled by the retardation layer, and Sekiguchi is silent as to which kind of substrate, if any, may be appropriate in the constructions of either Yano A or Yano B. As a result, a person of ordinary skill in the art would not have found any motivation to refer to Sekiguchi, and would have found no motivation or suggestion in Sekiguchi

regarding a modification of the substrates as used in each of Yano A and Yano B. In particular, Sekiguchi fails to provide any guidance as to whether an isotropic substrate could be used appropriately for the formation of the retardation layer of Yano A.

In summary, Sekiguchi simply illustrates isotropic substrates that avoid “distortions.” However, in Yano A and B, the objective is to “distort” light in a controlled manner using birefringent layers, so as to correct perceived “distortions” of the transmitted light as seen by the viewer. Since Sekiguchi is silent as to correction of light distortions, Sekiguchi does not provide any guidance as to which layers (isotropic or birefringent) are appropriate in Yano A or B.

In contrast, the present inventors have determined that using a base material that has low anisotropy in combination with a compensation layer as recited in present claim 1, can provide significant improvement in optical properties such as contrast, as illustrated by the experimental results in the present specification. This construction and its advantages are not taught or suggested in any of the cited references.

Moreover, the experimental results reported on pages 43-47 of the present specification confirm that the considerably improved contrast is completely unexpected based on the teachings of Yano A, Yano B, and Sekiguchi. In particular, neither Yano B nor Sekiguchi suggest that the construction of Yano A should be modified against the teachings of Yano A to result in a drastic contrast improvement (contrast of 10, 9 and 12 in Examples 1-3, see pages 43-45 of the present specification vs. contrast of 2, 4, and 6 in the Comparative Examples 1-3, see pages 45-47).

Therefore, the present claims are not obvious over the cited references taken alone or in any combination.

In addition, with respect to claims 9 and 10, Yano A and Yano B use a conventional protective film such as a TAC film for their polarizer, as in the Comparative Examples of the present specification, and Sekiguchi does not discuss a polarizing plate. In contrast, an advantage of the optical film of the present invention is that at least one layer of other optical element can be further laminated onto the optical film, for example, a polarizer laminated on a base material film side, as recited in present claims 9 and 10, respectively. The cited references are completely silent as to these respective features. Therefore, for these respective reasons alone, present claims 9 and 10 are not obvious over the cited references taken alone or in any combination.

Further, with respect to claim 10, since Yano A discloses the polarizing film 2 laminated on the side opposite the transparent (compensation) layer 12, i.e., on the side of the retardation layer 11 (see Yano A at para. 0024), and Yano B is silent as to how to arrange an isotropic base material layer, any combination of Yano A, Yano B, and Yoshimi would have resulted in the polarizer being on the retardation layer side as taught in Yano A. Therefore, for this reason alone, present claim 10 is not obvious over the cited references taken alone or in any combination.

With respect to claim 12, any combination of Yano A, Yano B and/or Sekiguchi would not remove the retardation layer of Yano A, so that the compensation layer of Yano A would not

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be formed directly on an isotropic layer. Therefore, for this reason alone, present claim 12 is not obvious over the cited references taken alone or in any combination.

With respect to the other dependent claims, the cited references are also completely silent as to the combinations of features recited in these respective claims. Therefore, these respective claims are not obvious over the cited references taken alone or in any combination.

In view of the above, it is submitted that the rejections should be withdrawn.

In conclusion, the invention as presently claimed is patentable. It is believed that the claims are in allowable condition and a notice to that effect is earnestly requested.

In the event there is, in the Examiner's opinion, any outstanding issue and such issue may be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

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In the event this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of the response period. Please charge the fee for such extension and any other fees which may be required to our Deposit Account No. 50-2866.

Respectfully submitted,

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